low

SEQUENCE LISTING

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Arg	Glu	Leu 35	Gln	Glu	His	Ser	Leu 40	Lys	Ala	Cys	Arg	Gln 45	Val	Val	Asp	
Gln	Gln 50	Leu	Arg	Asp	Val	Ser 55	Pro	Glu	Cys	Gln	Pro 60	Val	Gly	Gly	Gly	
Pro 65	Val	Ala	Arg	Gln	Tyr 70	Glu	Gln	Gln	Val	Val 75	Val	Pro	Pro	Lys	Gly 80	
Gly	Ser	Phe	Tyr	Pro 85	Gly	Glu	Thr	Thr	Pro 90	Pro	Gln	Gln	Leu	Gln 95	Gln	
Ser	Ile	Leu	Trp 100	Gly	Ile	Pro	Ala	Leu 105	Leu	Arg	Arg	Tyr	Tyr 110	Leu	Ser	
Val	Thr	Ser 115	Pro	Gln	Gln	Val	Ser 120	Tyr	Tyr	Pro	Gly	Gln 125	Ala	Ser	Ser	
Gln	Arg	Pro	Gly	Gln	Gly	Gln 135	Gln	Pro	Gly	Gl'n	Gly 140	Gln	Gln	Glu	Tyr	

Tyr Leu Thr Ser Pro Gln Gln Ser Gly Gln Trp Gln Gln Pro Gly Gln 150 Gly Gln Ala Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Glu 170 Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Trp Gln Pro Glu Gln Leu Gln 185 Gln Pro Thr Gln Gly Gln Gln Arg Gln Gln Pro Gly Gln Gly Gln Gln 200 Leu Arg Gln Gly Gln Gln Gly Gln Ser Gly Gln Gly Gln Pro Arg 210 Tyr Tyr Pro Thr Ser Ser Gln Gln Pro Gly Gln Leu Gln Gln Leu Ala 230 Gln Gly Gln Gln Gln Gln Pro Glu Arg Gly Gln Gln Gly Gln Gln 250 Ser Gly Gln Gly Gln Gln Leu Gly Gln Gly Gln Gly Gln Gln Pro Gly Gln Lys Gln Gln Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Ile Ser Pro Gln Gln Leu Gly Gln Gly Gln Ser Gly Gln Gly Gln Leu 290 295 300 Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Ser Gly Tyr Tyr Pro Thr Ser Ala Gln Gln Pro Gly Gln Leu Gln Gln Ser Thr 330 Gln Glu Gln Gln Leu Gly Gln Glu Gln Asp Gln Gln Ser Gly Gln Gly Arg Gln Gly Gln Gln Ser Gly Gln Arg Gln Gln Asp Gln Gln Ser 360 Gly Gln Gly Gln Pro Gly Gln Arg Gln Pro Gly Tyr Tyr Ser Thr 375 Ser Pro Gln Gln Leu Gly Gln Gly Gln Pro Arg Tyr Tyr Pro Thr Ser 385 390 Pro Gln Gln Pro Gly Gln Gln Gln Pro Arg Gln Leu Gln Pro 410 Glu Gln Gly Gln Gly Gln Gln Pro Glu Gln Gly Gln Gly Gln 420 Gln Pro Gly Gln Gly Glu Gln Gly Gln Pro Gly Gln Gly Gln Gln 440 435

Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro 455 Gln Gln Ser Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln 475 470 Gln Ser Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gln Pro Gly Gln 490 485 Glu Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr 515 Ser Pro Gln Gln Ser Gly Gln Glu Gln Leu Glu Gln Trp Gln Gln Ser Gly Gln Gly Gln Pro Gly His Tyr Pro Thr Ser Pro Leu Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ile Gly 570 Gln Gly Gln Gln Pro Gly Gln Leu Gln Gln Pro Thr Gln Gly Gln Gln 585 Gly Gln Gln Pro Gly Gln Gly Gln Gly Gln Gln Pro Gly Gln Gly 595 Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Fro Gly Gln Gly Gln 615 Pro Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Ser Gly Gln Gln Gln 630 635 Pro Gly Gln Trp Gln Gln Pro Gly Gln Gly Leu Pro Gly Tyr Tyr Pro 645 Thr Ser Ser Leu Gln Pro Glu Gln Gly Gln Gln Gly Tyr Tyr Pro Thr 660 665 Ser Gln Gln Gln Pro Gly Gln Gly Pro Gln Pro Gly Gln Trp Gln Gln 680 Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser 690 695 Gly Gln Gly Gln Pro Gly Gln Trp Leu Gln Pro Gly Gln Trp Leu Gln Ser Gly Tyr Tyr Leu Thr Ser Pro Gln Gln Leu Gly Gln Gly Gln Gln Pro Arg Gln Trp Leu Gln Pro Arg Gln Gly Gln Gln Gly Tyr Tyr 740 745

Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Gln Leu Gly Gln Gly 755 760 765

Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gln 770 775 780

Gln Gly Tyr Asp Ser Pro Tyr His Val Ser Ala Glu His Gln Ala Ala 785 790 795 800

Ser Leu Lys Val Ala Lys Ala Gln Gln Leu Ala Ala Gln Leu Pro Ala 805 810 815

Met Cys Arg Leu Glu Gly Gly Asp Ala Leu Leu Ala Ser Gln 820 825 830

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<212> PRT

<213> Wheat

<223> Ax2

<400> 2

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1 5 10 15

Ala Leu Thr Ala Ala Glu Gly Glu Ala Ser Gly Gln Leu Gln Cys Glu 20 25 30

Arg Glu Leu Gln Glu His Ser Leu Lys Ala Cys Arg Gln Val Val Asp 35 40 45

Gln Gln Leu Arg Asp Val Ser Pro Glu Cys Gln Pro Val Gly Gly 50 55 60

Pro Val Ala Arg Gln Tyr Glu Gln Gln Val Val Pro Pro Lys Gly
65 70 75 80

Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Pro Gln Gln Leu Gln Gln
85 90 95

Ser Ile Leu Trp Gly Ile Pro Ala Leu Leu Arg Arg Tyr Tyr Leu Ser 100 105 110

Val Thr Ser Pro Gln Gln Val Ser Tyr Tyr Pro Gly Gln Ala Ser Ser 115 120 125

Gln Arg Pro Gly Gln Gly Gln Glu Tyr Tyr Leu Thr Ser Pro Gln 130 135 140

Gln Ser Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln Ser Gly Tyr Tyr 145 150 155 160

Pro Thr Ser Pro Gln Gln Ser Gly Gln Lys Gln Pro Gly Tyr Tyr Pro

				165					170					175	
Thr	Ser	Pro	Trp 180	Gln	Pro	Glu	Gln	Leu 185	Gln	Gln	Pro	Thr	Gln 190	Gly	Gln
Gln	Arg	Gln 195	Gln	Pro	Gly	Gln	Gly 200	Gln	Gln	Leu	Arg	Gln 205	Gly	Gln	Gln
Gly	Gln 210	Gln	Ser	Gly	Gln	Gly 215	Gln	Pro	Arg	Tyr	Tyr 220	Pro	Thr	Ser	Ser
Gln 225	Gln	Pro	Gly	Gln	Leu 230	Gln	Gln	Leu	Ala	Gln 235	Gly	Gln	Gln	Gly	Gln 240
Gln	Pro	Glu	Arg	Gly 245	Gln	Gln	Gly	Gln	Gln 250	Ser	Gly	Gln	Gly	Gln 255	Gln
Leu	Gly	Gln	Gly 260	Gln	Gln	Gly	Gln	Gln 265	Pro	Gly	Gln	Lys	Gln 270	Gln	Ser
Gly	Gln	Gly 275	Gln	Gln	Gly	Tyr	Tyr 280	Pro	Ile	Ser	Pro	Gln 285	Gln	Leu	Gly
Gln	Gly 290	Gln	Gln	Ser	Gly	Gln 295	Gly	Gln	Leu	Gly	Tyr 300	Tyr	Pro	Thr	Ser
Pro 305	Gln	Gln	Ser	Gly	Gln 310	Gly	Gln	Ser	Gly	Tyr 315	Tyr	Pro	Thr	Ser	Ala 320
Gln	Gln	Pro	Gly	Gln 325	Leu	Gln	Gln	Ser	Thr 330	Gln	Glu	Gln	Gln	Leu 335	Gly
Gln	Glu	Gln	Gln 340	Asp	Gln	Gln	Ser	Gly 345	Gln	Gly	Arg	Gln	Gly 350	Gln	Gln
Ser	Gly	Gln 355	Arg	Gln	Gln	Asp	Gln 360	Gln	Ser	Gly	Gln	Gly 365	Gln	Gln	Pro
Gly	Gln 370	Arg	Gln	Pro	Gly	Tyr 375	Tyr	Ser	Thr	Ser	Pro 380	Gln	Gln	Leu	Gly
Gln 385	Gly	Gln	Pro	Arg	Tyr 390	Tyr	Pro	Thr	Ser	Pro 395	Gln	Gln	Pro	Gly	Gln 400
Glu	Gln	Gln	Pro	Arg 405	Gln	Leu	Gln	Gln	Pro 410	Glu	Gln	Gly	Gln	Gln 415	Gly
Gln	Gln	Pro	Glu 420	Gln	Gly	Gln	Gln	Gly 425	Gln	Gln	Gln	Arg	Gln 430	Gly	Glu
Gln	Gly	Gln 435	Gln	Pro	Gly	Gln	Gly 440	Gln	Gln	Gly	Gln	Gln 445	Pro	Gly	Gln
Gly	Gln 450	Pro	Gly	Tyr	Tyr	Pro 455	Thr	Ser	Pro	Gln	Gln 460	Ser	Gly	Gln	Gly

Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Leu Gln 465 470 Gln Pro Ala Gln Gly Gln Gln Pro Gly Gln Glu Gln Gln Gln Gln Gln 490 Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro 505 Thr Ser Pro Gln Gln Ser Gly Gln Glu Gln Leu Glu Gln Trp Gln Gln Ser Gly Gln Gly Gln Pro Gly His Tyr Pro Thr Ser Pro Leu Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ile 545 550 555 560 Gly Gln Gly Gln Pro Gly Gln Leu Gln Gln Pro Thr Gln Gly Gln 570 Gln Gly Gln Gln Pro Gly Gln Gly Gln Gly Gln Gln Pro Gly Glu 585 Gly Gln Gln Gly Gln Pro Gly Gln Gly Gln Fro Gly Gln Gly 595 Gln Pro Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Ser Gly Gln Gly Gln 615 Gln Pro Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr 630 635 Pro Thr Ser Ser Leu Gln Pro Glu Gln Gly Gln Gln Gly Tyr Tyr Pro 650 645 Thr Ser Gln Gln Gln Pro Gly Gln Gly Pro Gln Pro Gly Gln Trp Gln 665 Gln Ser Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln 675 Ser Gly Gln Gly Gln Pro Gly Gln Trp Leu Gln Pro Gly Gln Trp Leu Gln Ser Gly Tyr Tyr Leu Thr Ser Pro Gln Gln Leu Gly Gln Gly 715 Gln Gln Pro Arg Gln Trp Leu Gln Pro Arg Gln Gly Gln Gln Gly Tyr 725 Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Leu Gly Gln 745 Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly 760

Gln Gln Gly Tyr Asp Ser Pro Tyr His Val Ser Ala Glu His Gln Ala 770 775 780

Ala Ser Leu Lys Val Ala Lys Ala Gln Gln Leu Ala Ala Gln Leu Pro 785 790 795 800

Ala Met Cys Arg Leu Glu Gly Gly Asp Ala Leu Leu Ala Ser Gln 805 810 815

<210> 3

<211> 839

<212> PRT

<213> Wheat

<223> Dx5

<400> 3

Met Ala Lys Arg Leu Val Leu Phe Val Ala Val Val Ala Leu Val 1 5 10 15

Ala Leu Thr Val Ala Glu Gly Glu Ala Ser Glu Gln Leu Gln Cys Glu 20 25 30

Arg Glu Leu Gln Glu Leu Gln Glu Arg Glu Leu Lys Ala Cys Gln Gln 35 40 45

Val Met Asp Gln Gln Leu Arg Asp Ile Ser Pro Glu Cys His Pro Val 50 55 60

Val Val Ser Pro Val Ala Gly Gln Tyr Glu Gln Gln Ile Val Val Pro 65 70 75 80

Pro Lys Gly Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Pro Gln Gln 85 90 95

Leu Gln Gln Arg Ile Phe Trp Gly Ile Pro Ala Leu Leu Lys Arg Tyr
100 105 110

Tyr Pro Ser Val Thr Cys Pro Gln Gln Val Ser Tyr Tyr Pro Gly Gln
115 120 125

Ala Ser Pro Gln Arg Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln
130 135 140

Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Trp Gln Gln 145 150 155 160

Pro Glu Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro 165 170 175

Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gln Pro Gly Gln Gln Gly Gln 180 185 190

Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser 195 200 205 Ser Gln Leu Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln Gln Gln Gln 215 Gly Gln Gln Pro Gly Gln Ala Gln Gln Gln Gln Bro Gly Gln Gly 225 Gln Gln Pro Gly Gln Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln 250 Gln Pro Gly Gln Gly Gln Gly Gln Gln Leu Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Ser Gly Gln Gly Gln Pro Gly 275 Tyr Tyr Pro Thr Ser Leu Gln Gln Leu Gly Gln Gly Gln Ser Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Gln Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gln Pro Gly Gln Gly Gln Gly 330 Gln Gln Pro Gly Gln Gly Gln Gln Gln Gln Pro Gly Gln Gln 345 Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln 365 355 360 Ser Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Ser Gln Gln Pro Thr Gln Ser Gln Gln Pro Gly Gln Gly Gln Gly Gln Gln Gly Wal Gly 390 395 Gln Gly Gln Gln Ala Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln 415 405 Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly 425 Gln Pro Gly Tyr Tyr Leu Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln 440 Gln Pro Gly Gln Leu Gln Gln Ser Ala Gln Gly Gln Lys Gly Gln Gln 450 455 Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gln Gln Pro 470 Gly Gln Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Pro Gly Gln 500 505

Trp Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Leu Gln Pro Gly Gln Gly Gln Pro Gly Tyr Asp Pro Thr Ser Pro Gln 535 Gln Pro Gly Gln Gly Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln 550 Gly Gln Gln Gln Gln Leu Ala Gln Gly Gln Gly Gln Gln Pro 570 Ala Gln Val Gln Gln Gly Gln Gln Pro Ala Gln Gly Gln Gln Gly Gln Gln Leu Gly Gln Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Pro Ala Gln Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln His Gly Gln Gln Pro Gly Gln Gly Gln Gln Gln Gln Pro Gly 625 Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Trp Tyr Tyr Pro Thr Ser Pro Gln Glu Ser Gly Gln Gly Gln Pro Gly Gln Trp Gln Gln Pro 660 670 Gly Gln Gly Gln Pro Gly Tyr Tyr Leu Thr Phe Ser Val Ala Ala Arg 680 Thr Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln 695 Gly Gln Gln Pro Gly Gln Trp Gln Gln Ser Gly Gln Gly Gln His Trp 705 710 Tyr Tyr Pro Thr Ser Pro Lys Leu Ser Gly Gln Gly Gln Arg Pro Gly 730 Gln Trp Leu Gln Pro Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser 745 Pro Gln Gln Pro Pro Gln Gly Gln Leu Gly Gln Trp Leu Gln Pro 755 Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Thr Gly Gln Gly Gln Gln Ser Gly Gln Gly Gln Gly Tyr Tyr Ser Ser Tyr His Val Ser Val Glu His Gln Ala Ala Ser Leu Lys Val Ala Lys Ala 805 810

Gln Gln Leu Ala Ala Gln Leu Pro Ala Met Cys Arg Leu Glu Gly Gly 820 825 830

Asp Ala Leu Ser Ala Ser Gln 835

<210> 4

<211> 838

<212> PRT

<213> Wheat

<223> HMW2

<400> 4

Met Ala Lys Arg Leu Val Leu Phe Val Ala Val Val Ala Leu Val 1 5 10 15

Ala Leu Thr Val Ala Glu Gly Glu Ala Ser Glu Gln Leu Gln Cys Glu 20 25 30

Arg Glu Leu Gln Glu Leu Gln Glu Arg Glu Leu Lys Ala Cys Gln Gln 35 40 45

Val Met Asp Gln Gln Leu Arg Asp Ile Ser Pro Glu Cys His Pro Val 50 55 60

Val Val Ser Pro Val Ala Gly Gln Tyr Glu Gln Gln Ile Val Val Pro 65 70 75 80

Lys Gly Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Pro Gln Gln Leu 85 90 95

Gln Gln Arg Ile Phe Trp Gly Ile Pro Ala Leu Leu Lys Arg Tyr Tyr 100 105 110

Pro Ser Val Thr Ser Pro Gln Gln Val Ser Tyr Tyr Pro Gly Gln Ala 115 120 125

Ser Pro Gln Arg Pro Gly Gln Gly Gln Gln Pro Gly Gln Gln Gln 130 135 140

Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro 145 150 155 160

Gly Gln Trp Gln Gln Pro Glu Gln Gly Gln Pro Gly Tyr Tyr Pro Thr 165 170 175

Ser Pro Gln Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln Gln Gln Gln 180 185 190

Pro Gly Gln Gly Gln Gly Arg Gln Pro Gly Gln Gly Gln Pro Gly
195 200 205

Tyr Tyr Pro Thr Ser Ser Gln Leu Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gly Gln Gln Leu Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Ser Gly 280 Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Leu Gly Gln 290 295 Gly Gln Ser Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gln Pro Glu 330 Gln Gly Gln Gln Gln Gln Pro Gly Gln Gly Gln Gln Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr 375 Ser Ser Gln Gln Pro Thr Gln Ser Gln Gln Pro Gly Gln Gln Gln 390 385 Gly Gln Gln Val Gly Gln Gly Gln Ala Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Leu 420 Gln Ser Gly Gln Gly Gln Pro Gly Tyr Tyr Leu Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Pro Gly Gln Leu Gln Gln Ser Ala Gln Gly Gln Lys Gly Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln 465 Gln Gly Gln Gln Pro Gly Gln Gly Gln Gly Gln Gln Pro Gly Gln 490 Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly 500 505 510

Gln Gln Pro Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr 515 Tyr Pro Thr Ser Pro Leu Gln Pro Gly Gln Gly Gln Pro Gly Tyr Asp Pro Thr Ser Pro Gln Gln Pro Gly Gln Gln Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gln Gln Gln Leu Ala Gln Gly Gln Gln Gly Gln Gln Pro Ala Gln Val Gln Gln Gln Gln Pro Ala Gln Gly Gln Gln Gly Gln Gln Leu Gly Gln Gly Gln Gly Gln Gln Pro 595 Gly Gln Gly Gln Gln Pro Ala Gln Gly Gln Gly Gln Gln Pro Gly 615 Gln Gly Gln Gln Gly Gln Fro Gly Gln Gly Gln Fro Gly Gln 630 635 Gly Gln Pro Trp Tyr Tyr Pro Thr Ser Pro Gln Glu Ser Gly Gln Gly Gln Gln Pro Gly Gln Trp Gln Gln Pro Gly Gln Trp Gln Gln Pro Gly 665 Gln Gly Gln Pro Gly Tyr Tyr Leu Thr Ser Pro Leu Gln Leu Gly Gln 680 Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly 690 695 Gln Gln Pro Gly Gln Trp Gln Gln Ser Gly Gln Gly Gln His Gly Tyr 710 Tyr Pro Thr Ser Pro Gln Leu Ser Gly Gln Gly Gln Arg Pro Gly Gln 725 Trp Leu Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Leu Gly Gln Trp Leu Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Thr Gly Gln 770 Gly Gln Gln Ser Gly Gln Gly Gln Gly Tyr Tyr Ser Ser Tyr His Val Ser Val Glu His Gln Ala Ala Ser Leu Lys Val Ala Lys Ala Gln 810 805

Gln Leu Ala Ala Gln Leu Pro Ala Met Cys Arg Leu Glu Gly Gly Asp 820 825 830

Ala Leu Ser Ala Ser Gln 835

<210> 5

<211> 789

<212> PRT

<213> Wheat

<223> Bx7

<400> 5

Met Ala Lys Arg Leu Val Leu Phe Ala Ala Val Val Ala Leu Val 1 5 10 15

Ala Leu Thr Ala Ala Glu Gly Glu Ala Ser Gly Gln Leu Gln Cys Glu 20 25 30

His Glu Leu Glu Ala Cys Gln Gln Val Val Asp Gln Gln Leu Arg Asp
35 40 45

Val Ser Pro Gly Cys Arg Pro Ile Thr Val Ser Pro Gly Thr Arg Gln 50 55 60

Tyr Glu Gln Gln Pro Val Val Pro Ser Lys Ala Gly Ser Phe Tyr Pro 65 70 75 80

Ser Glu Thr Thr Pro Ser Gln Gln Leu Gln Gln Met Ile Phe Trp Gly
85 90 95

Ile Pro Ala Leu Leu Arg Arg Tyr Tyr Pro Ser Val Thr Ser Ser Gln 100 105 110

Gln Gly Ser Tyr Tyr Pro Gly Gln Ala Ser Pro Gln Gln Ser Gly Gln 115 120 125

Gly Gln Gln Pro Gly Gln Glu Gln Gln Pro Gly Gln Gln Gln Asp 130 135 140

Gln Gln Pro Gly Gln Arg Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln 145 150 155 160

Gln Pro Gly Gln Gly Gln Leu Gly Gln Gly Gln Pro Gly Tyr Tyr 165 170 175

Pro Thr Ser Gln Gln Pro Gly Gln Lys Gln Gln Ala Gly Gln Gln 180 185 190

Gln Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln
195 200 205

Ser Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro 210 215 220 Thr Ser Pro Gln Gln Ser Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln 235 Gln Pro Gly Gln Gly Gln Gln Ser Gly Gln Gly Gln Gln Gln Gln Gln Gln Pro Gly Gln Gly Gln Arg Pro Gly Gln Gly Gln Gly Tyr Tyr Pro 265 Ile Ser Pro Gln Gln Pro Gly Gln Gly Gln Gln Ser Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Leu Arg Gln Pro Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Ser Gly Gln Gly Gln Gly Tyr Tyr Pro Thr 330 Ser Leu Gln Gln Pro Gly Gln Gly Gln Leu Gly Gln Gly Fro 345 Gly Tyr Tyr Pro Thr Ser Gln Gln Ser Glu Gln Gly Gln Gln Pro Gly 360 Gln Gly Lys Gln Pro Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser 370 380 375 Pro Gln Gln Ser Gly Gln Gly Gln Leu Gly Gln Gly Gln Pro Gly 390 Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gln Gln Ser Gly 410 Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln 420 Gly Gln Gln Pro Gly Gln Gly Gln Ser Gly Tyr Phe Pro Thr Ser Arg Gln Gln Ser Gly Gln Gly Gln Pro Gly Gln Gly Gln Gln Ser Gly Gln Gly Gln Gln Gln Gln Pro Gly Gln Gln Gln Ala Tyr Tyr 465 470 Pro Thr Ser Ser Gln Gln Ser Arg Gln Arg Gln Gln Ala Gly Gln Trp Gln Arg Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Glu Gln Ser Gly Gln Ala Gln Gln Ser Gly Gln 520 515 525

Trp Gln Leu Val Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Leu
530 540

Gln Gln Pro Ala Gln Gly Gln Gln Pro Ala Gln Gly Gln Gln Ser Ala 545 550 555 560

Gln Glu Gln Gln Pro Gly Gln Ala Gln Gln Ser Gly Gln Trp Gln Leu 565 570 575

Val Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Leu Gln Gln Pro 580 585 590

Ala Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly 595 600 605

Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln 610 620

Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly 625 635 640

Gln Gln Pro Gly Gln Gly Gln Gln Pro Arg Gln Gly Gln Gln Gly Tyr
645 650 655

Tyr Pro Ile Ser Pro Gln Gln Ser Gly Gln Gly Gln Gln Pro Gly Gln 660 665 670

Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly
675 680 685

Gln Gln Pro Gly His Glu Gln Gln Pro Gly Gln Trp Leu Gln Pro Gly 690 700

Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Ser Gln Gln Ser Gly Gln 705 710 715 720

Gly His Gln Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu 725 730 735

Trp Gln Pro Gly Gln Gly Gln Gln Gly Tyr Ala Ser Pro Tyr His Val
740 745 750

Ser Ala Glu Tyr Gln Ala Ala Arg Leu Lys Val Ala Lys Ala Gln Gln 755 760 765

Leu Ala Ala Gln Leu Pro Ala Met Cys Arg Leu Glu Gly Ser Asp Ala 770 780

Leu Ser Thr Arg Gln 785

<210> 6

<211> 660

<212> PRT

<213> Wheat

<223> Dy12

<400> 6

Met Ala Lys Arg Leu Val Leu Phe Ala Ala Val Val Ile Ala Leu Val 1 5 10 15

Ala Leu Thr Thr Ala Glu Gly Glu Ala Ser Arg Gln Leu Gln Cys Glu 20 25 30

Arg Glu Leu Gln Glu Ser Ser Leu Glu Ala Cys Arg Gln Val Val Asp 35 40 45

Gln Gln Leu Ala Gly Arg Leu Pro Trp Ser Thr Gly Leu Gln Met Arg 50 55 60

Cys Cys Gln Gln Leu Arg Asp Val Ser Ala Lys Cys Arg Ser Val Ala 65 70 75 80

Val Ser Gln Val Ala Arg Gln Tyr Glu Gln Thr Val Val Pro Pro Lys
85 90 95

Gly Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Leu Gln Gln Leu Gln 100 105 110

Gln Gly Ile Phe Trp Gly Thr Ser Ser Gln Thr Val Gln Gly Tyr Tyr 115 120 125

Pro Ser Val Thr Ser Pro Arg Gln Gly Ser Tyr Tyr Pro Gly Gln Ala 130 135 140

Ser Pro Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Lys Trp Gln Glu 145 150 155 160

Pro Gly Gln Gly Gln Gln Trp Tyr Tyr Pro Thr Ser Leu Gln Gln Pro 165 170 175

Gly Gln Gly Gln Gln Ile Gly Lys Gly Lys Gln Gly Tyr Tyr Pro Thr 180 185 190

Ser Leu Gln Gln Pro Gly Gln Gly Gln Gln Ile Gly Gln Gln Gln 195 200 205

Gly Tyr Tyr Pro Thr Ser Pro Gln His Thr Gly Gln Arg Gln Gln Pro 210 215 220

Val Gln Gly Gln Gln Ile Gly Gln Gly Gln Gln Pro Glu Gln Gln 225 230 235 240

Gln Pro Gly Gln Trp Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln 245 250 255

Leu Gly Gln Gln Gln Pro Gly Gln Trp Gln Gln Ser Gly Gln Gly
260 265 270

Gln Gln Gly His Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln 275 280 Gln Gly His Tyr Leu Ala Ser Gln Gln Pro Ala Gln Gly Gln Gln Gly His Tyr Pro Ala Ser Gln Gln Gln Pro Gly Gln Gln Gln Gly His Tyr Pro Ala Ser Gln Gln Gln Pro Gly Gln Gly Gln Gly His 330 Tyr Pro Ala Ser Gln Gln Glu Pro Gly Gln Gly Gln Gln Gly Gln Ile Pro Ala Ser Gln Gln Gln Pro Gly Gln Gly Gln Gln Gly His Tyr Pro 355 360 Ala Ser Leu Gln Gln Pro Gly Gln Gln Gly His Tyr Pro Thr Ser Leu 375 Gln Gln Leu Gly Gln Gly Gln Gln Ile Gly Gln Pro Gly Gln Lys Gln 395 Gln Pro Gly Gln Gly Gln Gln Thr Gly Gln Gly Gln Bro Glu Gln Glu Gln Gln Pro Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln Gln Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln Gly His Tyr 455 450 Pro Ala Ser Leu Gln Gln Pro Gly Gln Gly Gln Gly Gln Pro Gly Gln 470 Arg Gln Gln Pro Gly Gln Gly Gln His Pro Glu Gln Gly Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Gly Gln Gln Leu Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Gly Gln Fro Gly Gln Gly Gln Gly 530 535 His Cys Pro Met Ser Pro Gln Gln Thr Gly Gln Ala Gln Gln Leu Gly 555 550 Gln Gly Gln Gln Ile Gly Gln Val Gln Fro Gly Gln Gly Gln Gln Gln 570

Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gln Gln Ser
580 585 590

Gly Gln Gly Gln Gln Ser Gly Gln Gly His Gln Pro Gly Gln Gly Gln 595 600 605

Gln Ser Gly Gln Glu Lys Gln Gly Tyr Asp Ser Pro Tyr His Val Ser 610 620

Ala Glu Gln Gln Ala Ala Ser Pro Met Val Ala Lys Ala Gln Gln Pro 625 630 635 640

Ala Thr Gln Leu Pro Thr Val Cys Arg Met Glu Gly Gly Asp Ala Leu 645 650 655

Ser Ala Ser Gln 660

<210> 7

<211> 648

<212> PRT

<213> Wheat

<223> Dy10

<400> 7

Met Ala Lys Arg Leu Val Leu Phe Ala Ala Val Val Ile Ala Leu Val 1 5 10 15

Ala Leu Thr Thr Ala Glu Gly Glu Ala Ser Arg Gln Leu Gln Cys Glu 20 25 30

Arg Glu Leu Gln Glu Ser Ser Leu Glu Ala Cys Arg Gln Val Val Asp
35 40 45

Gln Gln Leu Ala Gly Arg Leu Pro Trp Ser Thr Gly Leu Gln Met Arg 50 55 60

Cys Cys Gln Gln Leu Arg Asp Val Ser Ala Lys Cys Arg Ser Val Ala 65 70 75 80

Val Ser Gln Val Ala Arg Gln Tyr Glu Gln Thr Val Val Pro Pro Lys 85 90 95

Gly Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Leu Gln Gln Leu Gln
100 105 110

Gln Gly Ile Phe Trp Gly Thr Ser Ser Gln Thr Val Gln Gly Tyr Tyr 115 120 125

Pro Gly Val Thr Ser Pro Arg Gln Gly Ser Tyr Tyr Pro Gly Gln Ala 130 135 140

Ser Pro Gln Gln Pro Gly Gln Gly Gln Pro Gly Lys Trp Gln Glu 145 Pro Gly Gln Gln Gln Trp Tyr Tyr Pro Thr Ser Leu Gln Gln Pro 170 Gly Gln Gly Gln Gln Ile Gly Lys Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Leu Gln His Thr Gly Gln Arg Gln Gln Pro Val Gln Gly Gln Pro 215 Glu Gln Gly Gln Pro Gly Gln Trp Gln Gly Tyr Tyr Pro Thr 240 225 230 235 Ser Pro Gln Gln Leu Gly Gln Gly Gln Pro Arg Gln Trp Gln Gln 250 Ser Gly Gln Gln Gln Gln His Tyr Pro Thr Ser Leu Gln Gln Pro 265 Gly Gln Gly Gln Gln His Tyr Leu Ala Ser Gln Gln Gln Pro Gly Gln Gly Gln Gln Gly His Tyr Pro Ala Ser Gln Gln Gln Pro Gly Gln 295 Gly Gln Gln Gly His Tyr Pro Ala Ser Gln Gln Fro Gly Gln Gly 310 315 Gln Gln Gly His Tyr Pro Ala Ser Gln Glu Pro Gly Gln Gly Gln 325 330 Gln Gly Gln Ile Pro Ala Ser Gln Gln Gln Pro Gly Gln Gly Gln Gln 345 Gly His Tyr Pro Ala Ser Leu Gln Gln Pro Gly Gln Gly Gln Gly His Tyr Pro Thr Ser Leu Gln Gln Leu Gly Gln Gln Gln Thr Gly Gln Pro Gly Gln Lys Gln Gln Pro Gly Gln Gln Gln Thr Gly Gln 390 395 Gly Gln Gln Pro Glu Gln Glu Gln Pro Gly Gln Gly Gln Gln Gly 405 Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln Gln Gln Gly 425 Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln 435 440

Gly Gln Gln Gly His Tyr Pro Ala Ser Leu Gln Gln Pro Gly Gln Gly 450 455 460

Gln Pro Gly Gln Arg Gln Gln Pro Gly Gln Gly Gln His Pro Glu Gln 465 470 475 480

Gly Lys Gln Pro Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Pro
485 490 495

Gln Gln Pro Gly Gln Gly Gln Gln Leu Gly Gln Gly Gln Gln Gly Tyr
500 505 510

Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Gln Gln Pro Gly Gln 515 520 525

Gly Gln Gln Gly His Cys Pro Thr Ser Pro Gln Gln Ser Gly Gln Ala 530 535 540

Gln Gln Pro Gly Gln Gly Gln Ile Gly Gln Val Gln Gln Pro Gly
545 550 555 560

Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Val Gln Gln Pro Gly Gln 565 570 575

Gly Gln Gln Ser Gly Gln Gly Gln Gln Ser Gly Gln Gly His Gln Pro 580 585 590

Gly Gln Gly Gln Gln Ser Gly Gln Glu Gln Gln Gly Tyr Asp Ser Pro 595 600 605

Tyr His Val Ser Ala Glu Gln Gln Ala Ala Ser Pro Met Val Ala Lys 610 620

Ala Gln Gln Pro Ala Thr Gln Leu Pro Thr Val Cys Arg Met Glu Gly 625 630 635

Gly Asp Ala Leu Ser Ala Ser Gln 645

<210> 8

<211> 705

<212> PRT

<213> Wheat

<223> By9

<400> 8

Met Ala Lys Arg Leu Val Leu Phe Ala Thr Val Val Ile Thr Leu Val 1 5 10 15

Ala Leu Thr Ala Ala Glu Gly Glu Ala Ser Arg Gln Leu Gln Cys Glu 20 25 30

Arg Glu Leu Gln Glu Ser Ser Leu Glu Ala Cys Arg Gln Val Val Asp 35 40 45 Gln Gln Leu Ala Gly Arg Leu Pro Trp Ser Thr Gly Leu Gln Met Arg Cys Cys Gln Gln Leu Arg Asp Val Ser Ala Lys Cys Arg Pro Val Ala 75 70 Val Ser Gln Val Val Arg Gln Tyr Glu Gln Thr Val Val Pro Pro Lys 90 Gly Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Leu Gln Gln Leu Gln 105 Gln Val Ile Phe Trp Gly Thr Ser Ser Gln Thr Val Gln Gly Tyr Tyr 115 Pro Ser Val Ser Ser Pro Gln Gln Gly Pro Tyr Tyr Pro Gly Gln Ala 135 Ser Pro Gln Gln Pro Gly Gln Gln Gln Pro Gly Lys Trp Gln Glu Leu Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu His Gln Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Ser Ser Leu Gln Gln Pro Gly Gln Gly Gln Gln Ile Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser 195 205 Leu Gln Gln Pro Gly Gln Gly Gln Ile Gly Gln Gly Gln Gly 215 Tyr Tyr Pro Thr Ser Pro Gln His Pro Gly Gln Arg Gln Gln Pro Gly 230 235 Gln Gly Gln Gln Ile Gly Gln Gly Gln Leu Gly Gln Gly Arg Gln Ile Gly Gln Gly Gln Gln Ser Gly Gln Gly Gln Gly Tyr Tyr Pro 260 Thr Ser Pro Gln Gln Leu Gly Gln Gly Gln Pro Gly Gln Trp Gln 280 Gln Ser Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Gln Gln Gln 290 295 Pro Gly Gln Gly Gln Gln Gly Gln Tyr Pro Ala Ser Gln Gln Fro 315 Gly Gln Gly Gln Gly Gln Tyr Pro Ala Ser Gln Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Tyr Pro Ala Ser Gln Gln Gln Pro Gly Gln 345 340

Gly Gln Gln Gly His Tyr Leu Ala Ser Gln Gln Pro Gly Gln Gly Gln Gln Arg His Tyr Pro Ala Ser Leu Gln Gln Pro Gly Gln Gly Gln 375 Gln Gly His Tyr Thr Ala Ser Leu Gln Gln Pro Gly Gln Gln Gln 390 Gly His Tyr Pro Ala Ser Leu Gln Gln Val Gly Gln Gln Gln Ile 405 410 Gly Gln Leu Gly Gln Arg Gln Gln Pro Gly Gln Gly Gln Gln Thr Arg 420 Gln Gly Gln Gln Leu Glu Gln Gly Gln Fro Gly Gln Gly Gln Gln Thr Arg Gln Gly Gln Gln Leu Glu Gln Gly Gln Gln Pro Gly Gln Gly 455 Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln 475 465 470 Gln Pro Gly Gln Ser Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr 490 Ser Ser Ser Leu Gln Gln Pro Gly Gln Gly Leu Gln Gly His Tyr Pro 510 500 505 Ala Ser Leu Gln Gln Pro Gly Gln Gly His Pro Gly Gln Arg Gln Gln 515 Pro Gly Gln Gly Gln Gln Pro Glu Gln Gly Gln Gln Pro Gly Gln Gly 535 Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Gly Lys 545 Gln Leu Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln 570 Pro Gly Gln Gly Gln Pro Gly Gln Gly Gln Gly His Cys Pro 585 Thr Ser Pro Gln Gln Thr Gly Gln Ala Gln Gln Pro Gly Gln Gly Gln 595 600 Gln Ile Gly Gln Val Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr 615 Pro Ile Ser Leu Gln Gln Ser Gly Gln Gly Gln Gln Ser Gly Gln Gly 625 Gln Gln Ser Gly Gln Gly His Gln Leu Gly Gln Gln Gln Ser Gly 645 650

Gln Glu Gln Gln Gly Tyr Asp Asn Pro Tyr His Val Asn Thr Glu Gln 660 665 670

Gln Thr Ala Ser Pro Lys Val Ala Lys Val Gln Gln Pro Ala Thr Gln 675 680 685

Leu Pro Ile Met Cys Arg Met Glu Gly Gly Asp Ala Leu Ser Ala Ser 690 695 700

Gln 705

<210> 9

<211> 602

<212> PRT

<213> Wheat

<223> glu1A

<400> 9

Met Ala Lys Arg Leu Val Leu Phe Ala Thr Val Val Ile Gly Leu Val 1 5 10 15

Ser Leu Thr Val Ala Glu Gly Glu Ala Ser Lys Gln Leu Gln Cys Glu 20 25 30

Arg Glu Leu Gln Glu Ser Ser Leu Glu Ala Cys Arg Leu Val Val Asp 35 40 45

Gln Gln Leu Ala Ser Arg Leu Pro Trp Ser Thr Gly Leu Gln Met Arg 50 55 60

Cys Cys Gln Gln Leu Arg Asp Ile Ser Ala Lys Cys Arg Pro Val Ala 65 70 75 80

Leu Ser Gln Val Ala Arg Gln Tyr Gly Gln Thr Ala Val Pro Pro Lys 85 90 95

Gly Gly Pro Phe Tyr His Arg Glu Thr Thr Pro Leu Gln Gln Leu Gln 100 105 110

Gln Gly Ile Phe Gly Gly Thr Ser Ser Gln Thr Val Gln Gly Tyr Tyr 115 120 125

Pro Ser Val Ile Ser Pro Gln Gln Gly Ser Tyr Tyr Pro Gly Gln Ala 130 135 140

Ser Pro Gln Gln Pro Gly Lys Trp Gln Glu Leu Gly Gln Gln Gln 145 150 155 160

Trp Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln Gln Gly 165 170 175

Tyr Tyr Arg Thr Ser Leu Gln Gln Pro Gly Gln Arg Gln Gln Gly Tyr Tyr Arg Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln Gln Ile Gly Gln 200 Trp Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln His Pro Gly Gln Gly Gln Gln Pro Gly Gln Val Gln Lys Ile Gly Gln Gly Gln Gln Pro Glu 230 235 Lys Gly Gln Gln Leu Gly Gln Glu Gln Ile Gly Gln Gln Gln 250 Pro Glu Gln Gly Gln Pro Gly Gln Gly Gln Pro Gly Gln Gly 270 260 Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln 280 Gln Pro Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr 295 Pro Thr Ser Leu Gln Gln Pro Val Gln Gly Gln Gly His Tyr Pro 305 310 Ala Ser Gln His Gln Pro Gly Gln Gly Gln Gln Gly His Gln Pro Ala Ser Leu Gln Leu Ser Gly Gln Gly Gln Gly His His Pro Ala Ser Leu Gln Gln Pro Gly Gln Gly Lys Gln Thr Gly Gln Arg Glu Gln Arg 355 Gln Gln Pro Gly Gln Gly Gln Gln Thr Gly Gln Gly Gln Gln Pro Glu Gln Glu Gln Gln Pro Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Tyr 385 Leu Gln Gln Pro Gly Gln Gly Gln Pro Glu Gln Trp Gln Gln Pro Gly Gln Gly Gln Gln His Tyr Pro Ala Ser Leu Gln Gln Ser Gly 425 Gln Gly Gln Gln Gly His Tyr Pro Ala Ser Leu Gln Gln Leu Gly Gln 435 440 Gly Gln Pro Gly Gln Thr Gln Gln Pro Gly Gln Gly Gln Gln Pro Glu 455 Gln Glu Glu Gln Ser Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser 465 470 475

Pro Gln Gln Pro Gly Gln Gly Gln Gly His Phe Pro Thr Ser Gly
485 490 495

Gln Ala Gln Gln Pro Gly Gln Gly Gln Gln Ile Gly Gln Ala Gln Gln
500 505 510

Leu Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro
515 520 525

Gly Gln Glu Gln Gln Ser Gly Gln Gly Gln Gln Leu Gly Gln Gly His 530 535 540

Gln Pro Gly Gln Gly Gln Gln Ser Gly Gln Glu Gln Gln Gly Tyr Asp 545 550 555 560

Ser Pro Tyr His Val Ser Val Glu Gln Gln Ala Ala Ser Pro Lys Val 565 570 575

Ala Lys Ala His His Pro Val Ala Gln Leu Pro Thr Met Cys Gln Met 580 585 590

Glu Gly Gly Asp Ala Leu Ser Ala Ser Gln 595 600

<210> 10

<211> 621

<212> PRT

<213> Artificial sequence

<220>

<223> Consensus sequence derived from sequences of Table 1

<400> 10

Met Ala Lys Arg Leu Val Leu Phe Ala Ala Val Val Val Ala Leu Val 1 5 10 15

Ala Leu Thr Ala Glu Gly Glu Ala Ser Gln Leu Gln Cys Glu Arg Glu 20 25 30

Leu Gln Glu Ser Leu Ala Cys Arg Gln Val Val Asp Gln Gln Leu Arg
35 40 45

Asp Val Ser Pro Cys Arg Pro Val Val Ser Pro Val Ala Arg Gln Tyr 50 60

Glu Gln Gln Val Val Pro Pro Lys Gly Gly Ser Phe Tyr Pro Gly Glu 65 70 75 80

Thr Thr Pro Gln Gln Leu Gln Gln Ile Phe Trp Gly Ile Pro Ala Leu 85 90 95

Leu Arg Tyr Tyr Pro Ser Val Thr Ser Pro Gln Gln Gly Ser Tyr Tyr
100 105 110

Pro Gly Gln Ala Ser Pro Gln Gln Pro Gly Gln Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Thr Ser Pro Gln Gln Pro Gly Gln Gln Gln Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Gln Gln Pro Gly Gln Gln Gln Gln Gly Gln Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr 170 Ser Gln Pro Gly Gln Gln Gln Pro Gln Gly Gln Gln Gln Gln Gly 185 Gln Gln Gly Gln Gly Gln Gly Gln Gly Gln Gly Gln Gly Gln Pro Gly Gln Gln Gly Gln Gly Gln Gln Gly Gln Fro Gln Gln Ser Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Gln Gln Pro Gly Gln Gly 235 Gln Gln Gln Gln Gln Gln Gln Gln Fro Gly Gln Gln Gln Gln Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Pro Ser Gln Gln Pro Gly Gln Gln Pro Gln Gln Gln Gln Gln Pro Gln 295 290 Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro 310 Gln Gln Ser Gly Gln Gly Gln Gly Tyr Tyr Thr Ser Pro Gln Gln Ser 325 Gly Gln Gln Pro Gln Gln Gln Gln Gln Gln Gln Gln Fro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gly Gln Pro Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gln Gln Pro 370 Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser 405 410

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Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro

Gln Gln Ser Gly Gln Gly Gln Gln Gly Gln Gly Tyr Tyr Thr Gly Gln 465 470 475 480

Gln Gly Tyr Tyr Pro Thr Ser Gln Gln Pro Gly Gln Gly Gln Gln Pro 485 490 495

Gly Gln Gln Gln Gln Gly Gln Tyr Tyr Pro Ser Pro Ser Gly Gln Gly 500 505 510

Gln Pro Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Gly Gln 515 520 525

Gly Gln Gln Pro Gly Gln Gln Gly Gln Trp Leu Gln Pro Gly Gln Gly 530 540

Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Gly Gln Gln Gln 545 550 555

Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Gln Gln Ser Gly Gln Gln 565 570 575

Gln Gly Tyr Asp Ser Pro Tyr His Val Ser Ala Glu Gln Ala Ala Ser 580 585 590

Leu Lys Val Ala Lys Ala Gln Gln Leu Ala Ala Gln Leu Pro Ala Met 595 600 605

Cys Arg Leu Glu Gly Gly Asp Ala Leu Ser Ala Ser Gln 610 615 620

<210> 11

<211> 18

<212> PRT

<213> wheat

<223> preserved C-terminal motif

<400> 11

Leu Lys Val Ala Lys Ala Gln Gln Leu Ala Ala Gln Leu Pro Ala Met
1 5 10 15

Cys Arg

<210> 12

<211> 2073

<212> DNA

<213> Guinea pig

<220>

<221> CDS

<222> (1)..(2073)

<223> transglutaminase enzyme

<400> 12

atg gca gag gat ctg atc ctg gag aga tgt gat ttg cag ctg gag gtc 48 aat ggc cgc gac cac cgc acg gcc gac ctg tgc cgg gag agg ctg gtg 96 ttg cgg cgg ggc cag ccc ttc tgg ctg acg ctg cac ttt gag ggc cgt 144 ggc tac gag gct ggt gtg gac act ctc acc ttc aac gct gtg acc ggc 192 240 cca gat ccc agt gag gac ggg act atg gcc cgg ttc tca ctg tcc 288 agt gct gtc gag ggg ggc acc tgg tca gcc tca gca gtg gac cag cag 336 gac age act gte teg etg etc age ace cea get gat gee eec att 384 ggc ctg tat cgc ctc agc ctg gag gcc tcc act ggt tac cag ggc tcc 432 age tte qta etg gge cae tte ate etg ete tae aat eet egg tge eea 480 gcg gat gct gtc tat atg gac tca gac caa gag cgg cag gag tat gtg ctc acc caa cag ggc ttc atc tac cag ggc tcg gcc aag ttc atc aat 528 576 ggc ata cct tgg aac ttc ggg cag ttt gaa gat ggg atc ctg gat att 624 tgc ctg atg ctc ttg gac acc aac ccc aag ttc ctg aag aat gct ggc 672 caa gac tgc tcg cgc cgc agc aga cct gtc tac gtg ggc cgg gtg gtg age gee atg gte aac tge aat gae gat eag gge gtg ett eag gga ege 720 tgg gac aac aac tac agt gat ggt gtc agc ccc atg tcc tgg atc ggc 768 816 age gtg gac ate etg egg ege tgg aaa gae tat ggg tge eag ege gte aag tac ggc cag tgc tgg gtc ttc gct gct gtg gcc tgc aca gtg ctg 864 912 cgg tgc ctt ggc atc ccc acc cga gtc gtg acc aac ttt aac tca gcc 960 cac gac cag aac agc aac ctg ctc atc gag tac ttc cga aac gag tct 1008 ggg gag atc gag ggg aac aag agc gag atg atc tgg aac ttc cac tgc tgg gtg gag tcg tgg atg acc agg ccg gac ctg gag cct ggg tac gag 1056 ggg tgg cag gcc ctg gac ccc aca ccc cag gag aag agt gaa ggg aca 1104 1152 tac tgc tgt ggc cca gtt ccg gtt cga gcc atc aag gag ggc cac ctg

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1200 aac gtc aag tat gat gca cct ttc gtg ttt gct gag gtc aat gct gac 1248 gtg gtg aac tgg atc cgg cag aaa gat ggg tcc ctg cgc aag tcc atc 1296 aac cat ttg gtt gtg ggg ctg aag atc agt act aag agt gtg ggc cgc 1344 gat gag cga gag gac atc acc cac acc tac aag tac cca gag gga tct 1392 qaa gag gag cgg gaa gct ttt gtt agg gcc aac cac cta aat aaa ctg 1440 gcc aca aag gaa gag gct cag gag gaa acg gga gtg gcc atg cgg atc 1488 cgt gtg ggc cag aac atg act atg ggc agt gac ttt gac atc ttt gcc 1536 tac atc acc aat ggc act gct gag agc cac gaa tgc caa ctc ctg ctc 1584 tgt gca cgc atc gtc agc tac aat gga gtc ctg ggg ccc gtg tgc agc 1632 acc aac gac ctg ctc aac ctg acc ctg gat ccc ttc tcg gag aac agc atc ccc ctg cac atc ctc tat gag aag tac ggt gac tac ctg act gag 1680 tcc aac ctc atc aag gtg cga ggc ctc ctt atc gag cca gcc aac 1728 1776 age tat gta ttg gee gag agg gae att tae etg gag aat eea gaa ate 1824 aag atc cgg gtc ttg ggg gag ccc aag cag aac cgc aag ctg att gct 1872 gag gtg tct ctg aag aat ccg ctc cct gtg ccg ctg ctg ggt tgt atc 1920 ttc acc gtg gaa gga gct ggc ctg acc aag gac cag aag tcg gtg gag 1968 gtc cca gac ccc gtg gaa gca ggg gag caa gcg aag gta cgg gtg gac 2016 ctg ctg ccg acg gag gtg ggc ctc cac aag ctg gtg gtg aac ttc gag 2064 tgc gac aag ctg aag gcc gtg aag ggc tat cgg aac gtc atc atc ggc 2073 ccc gcc taa

<210> 13

<211> 736

<212> DNA

<213> Rice

220>

<223> regulatory region for seed-specific expression

<400> 13

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ttattattat tttacaaaaa tataaaatag atcagtccct caccacaagt agagcaagtt 120

ggtgagttat tgtaaagttc tacaaagcta atttaaaagt tattgcatta acttattca 180

tattacaaac aagagtgtca atggaacaat gaaaaccata tgacatacta taattttgtt 240

tttatta	attg	aaa	ttat	ata	att	caaa	gag	aataa	atcca	cata	gccgt	a a	agtt	ctac	a	300
tgtggtg	gcat	tac	caaa	ata	tat	atag	ctt	acaaa	acatg	acaa	gctta	g t	ttga	aaaa	t	360
tgcaato	cctt	atc	acat	tga	cac	ataa	agt	gagtg	atgag	tcat	aatat	t a	tttt	cttt	g	420
ctaccca	atca	tgt	atat	atg	ata	gcca	caa	agtta	ctttg	atga	tgata	t c	aaag	aaca	t	480
ttttagg	gtgc	acc	taac	aga	ata	tcca	aat	aatat	gactc	actt	agatc	a t	aata	gagc	a	540
tcaagta	aaaa	cta	acac	tct.	aaa	gcaa	ccg	atggg	jaaagc	atct	ataaa	t a	gaca	agca	С	600
aatgaaa	aatc	ctc	atca	tcc	ttc	acca	caa	ttcaa	atatt	atag	ttgaa	g c	atag	tagt	a	660
gaatcca	aaca	aca	atga	aga	tca	tttt	cgt	atttg	ctctc	cttg	ctatt	g t	tgca	tgca	a	720
tgcctct	tgcg	tct	aga													736
<210><211><211><212><213>	14 32 DNA Arti	ific	ial	seqı	ıenc	e										
<220> <223>	PLT	217	forw	ard	pri	mer	for	ampli	ficat	ion c	f whe	at	gene	Ax1		
<400> gctcago	14 caga	gtt	ctat	cac	tgg	ctgg	cca	ac								32
<210><211><212><212><213>	15 31 DNA Art:	ific	ial	seq	uenc	e										
<220> <223>	PLT	219	reve	rse	pri	mer	for	ampli	ficat	ion c	f whe	at	gene	Ax1		
<400> ggatcc	15 gatt	acg	tggc	ttt	agc	agac	cgt	С								31
<210><211><212><212><213>		ific	ial	seq	uenc	e										
<220> <223>	PLT	228	forw	ard	pri	mer	for	ampli	ificat	ion c	of whe	at	gene	Ax2		
<400> ggatcc	16 gctt	aga	.agca	ittg	agt	ggcc	gc									29

<210> 17

<211>	31	
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. 220-		
<220>		
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<400>	17	
get.cag	ccta tcactggctg gccaacaatg c	31
JJ		
<210>	18	
<211>	29	
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<213>	Artificial sequence	
	-	
<220>		
	Diministration of these gone Dy7	
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tctagaa	atgg cactactcga catggttag	29
<210>		
<211>	21	
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<213>	Artificial sequence	
<220>		
	Professional Company of the Profession Professional Profe	
<223>	PLT186 reverse primer for amplification of wheat gene Bx7	
<400>	19	
caccat	gcaa gctgcagaga g	21
•		
-210-	20	
<210>		
<211>	28	
<212>	DNA	
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	-	
<220>		
	Press Co. and adjust for applification of which many Press	
<223>	PLT562 forward primer for amplification of wheat gene Bx17	
<400>	20	
tctaga	tatg gctaageggt tagteete	28
-010	21	
<210>	21	
<211>		
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	-	
<220>		
	PLT563 reverse primer for amplification of wheat gene Bx17	
<223>	FB1503 Teverse primer for amprilitedation of wheat gene bx1/	
<400>	21	_
gatatc	tgcg agctgcagag agttc	25

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<220>		
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<400>	22	
cccggg	caca gataaatgtt gtgattca	28
	•	
<210>	23	
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<211>	27	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	G1B5 forward primer for amplification of wheat gene Dx5	
<400>	24	
tgttcca	atgc aggctacctc ccactac	27
<210>	25	
<211>	26	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	PLT189 reverse primer for amplification of wheat gene Dx5	
<400>	25	
gtcgaca	atgc ctaagcacca tgcgag	26
<210>	26	
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<213>	Artificial sequence	
<220>		
<223>	G2B3 forward primer for amplification of wheat gene Dy10	

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-210-	27	
<210><211>	27	
<211>		
	Artificial sequence	
(213)	Artificial Sequence	
<220>		
<223>	G2B5 reverse primer for amplification of wheat gene Dy10	
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